FACT SHEET

EPA Region 7

Waterloo Coal Gasification Site
Waterloo, Iowa

April 1998

INTRODUCTION

The U.S. Environmental Protection Agency continues to oversee activities at the Waterloo Coal Gasification site at 1416 Sycamore Street in Waterloo, Iowa. In December 1997, MidAmerican Energy Company, the owner of the site, began onsite thermal treatment of soil contaminated with coal tar.

SITE BACKGROUND

Between 1901 and 1956, the Waterloo gas plant was a primary source of gas for lighting, heating, cooking and industry in Waterloo. Prior to availability of natural gas, in certain regions of the United States, including Iowa, gas or “town gas” was manufactured from coal or oil. In 1956 gas production was discontinued at the Waterloo gas plant. The Waterloo gas plant was dismantled between 1964 and 1967, leaving a vacant lot.

When the gas plant closed, coal tar, the primary byproduct of manufactured gas, was left at the site. The primary compounds of concern in coal tar are polynuclear aromatic hydrocarbons (PAHs) which may cause health risks to persons who are exposed to them over long periods of time. Former manufactured gas plants (FMGPs), such as the Waterloo site, are studied to determine whether PAHs or other coal tar compounds are present and, if so, adversely affecting the environment.

In the late 1980s, EPA collected soil and groundwater samples from the site and discovered that site soil and groundwater is contaminated with PAHs. In 1993, MidAmerican Energy signed an Administrative Order on Consent (AOC) with EPA to remove coal tar, visibly contaminated coal tar impacted soils, and coal tar impacted materials at the site. In 1995, MidAmerican Energy signed a second AOC with EPA to conduct a remedial investigation and feasibility study (RI/FS). The RI/FS will determine whether long-term cleanup actions are necessary at the site to protect human health and the environment. Most of the data for the RI has been collected. The data will be evaluated in the FS.

TREATMENT OF CONTAMINATED SOILS

Approximately 11,000 tons of coal tar and coal tar impacted soil were excavated at the Waterloo site from 1994 through 1996. The excavated material was processed and shipped to the George Neal Electrical Generating Station in Sioux City, Iowa, and burned with coal at the power plant.

In December 1997, a thermal desorption unit (TDU) was constructed on the Waterloo site to treat the coal tar impacted soil that remained at the perimeter of the original Waterloo excavation. Additional coal tar impacted soil was transported to the Waterloo site from three nearby FMGP sites in Charles City, Hampton, and Independence that are under the supervision of the Iowa Department of Natural Resources. The excavated soil was fed into the TDU where it was heated to high temperatures causing the contaminants in the soil to vaporize or "desorb". By the end of March 1998, approximately 25,000 tons of soil had been treated in the TDU. The treated soil was used as backfill in the large excavated area at the Waterloo site.

MidAmerican Energy is considering using the TDU at the Waterloo site for treatment of additional coal tar impacted soil from a FMGP site in Waverly, Iowa.

ADDITIONAL INFORMATION

Site related documents are available to the public at the Waterloo Public Library, 415 Commercial Street, Waterloo, Iowa. EPA will update the information at the library periodically.

If you have questions about this fact sheet, the site, or would like additional information, please contact:

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